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BOX PATENT APPLICATION
Assistant Commissioner for Patents
Washington, D.C. 20231

Re: Filing of New U.S. Utility Patent Application
Title: *System and Method For Implementing An Image-Based
Document Handling And Delivery System*
Inventors: **June Martin, Kelli Martin, Tony Hashem,
Jennifer Vecchio and Dave Wood**

Dear Sir:

Attached is a new patent application for filing in the United States Patent and Trademark Office including twenty-three (23) pages of Specification, fifteen (15) pages of Claims (numbered 1-46), one (1) page Abstract, thirty (30) sheets of Drawings (labeled Figs. 1-12), and an unexecuted Joint Declaration.

The filing fee is calculated as follows:

				AMOUNT
BASIC FILING FEE				\$690.00
No. of Claims		No. in Excess	Rate	
Number of Claims in Excess of: 20	46	26	\$18.00	468.00
Independent Claims in Excess of: 3	4	1	\$78.00	78.00
First Presentation of Multiple Dependent Claims			\$ 130.00	
Reduce by 1/2 for Small Entity				
TOTAL FEE DUE				\$1,236.00



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A check in the amount of \$1,158.00 is attached to cover the basic application filing and additional claims fees. In the event of any variance between the amount enclosed and the Patent and Trademark Office charges, please charge or credit any difference to the undersigned's Deposit Account No. 50-0206.

Please direct all communication concerning this application to:

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Respectfully submitted,

HUNTON & WILLIAMS

By:

A handwritten signature in black ink, appearing to read "Rene Vazquez", written over a horizontal line.

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Dated: July 20, 2000

**SYSTEM AND METHOD FOR IMPLEMENTING AN IMAGE-BASED DOCUMENT
HANDLING AND DELIVERY SYSTEM**

FIELD OF THE INVENTION

5

This invention relates to document handling and delivery systems and, more specifically, to a system and method for implementing an image-based document handling and delivery system.

10 **BACKGROUND OF THE INVENTION**

Businesses typically use traditional paper-based document handling and delivery systems. The most common traditional paper-based document delivery systems are government and private mail delivery services.

Many businesses would benefit from a true "image-based" document handling and
15 delivery system in which, a paper document is converted to an electronic image and, once a document is converted to an image (e.g., converted to an image file with a scanner or similar equipment), the document can be transmitted and manipulated electronically in image form without having to convert the document back to paper. However, many businesses are reluctant to convert to an image-based document handling and delivery system because of the
20 complexities involved. For many businesses, their entire infrastructures and methodologies for handling documents from customers are based on paper-based systems, and it is often not clear how those methodologies and infrastructures would need to change to implement image-based systems. Thus, many businesses have a need for information and guidance to assist

them in converting their paper-based infrastructures and methodologies connected with their document handling and delivery systems to image-based systems.

SUMMARY OF THE INVENTION

5 In view of the above problems in the art, the present invention provides a system and method for implementing an image-based document handling and delivery system. The system and method of the present invention provides a business entity with information and guidance required to convert its current paper-based document handling and delivery system to an image-based system.

10 An image-based document handling and delivery system (Imaging System) offers many advantages over traditional paper-based document handling and delivery systems, including: (1) improved business cycle time because time-consuming traditional mail/courier services are no longer used or are used less frequently; (2) reduced mail/courier costs; (3) fewer resources needed to open/sort/deliver mail internally; and (4) fewer lost files.

15 Additional objects and advantages of the invention will be set forth in part in the description which follows, and in part will be obvious from the description, or may be learned by practice of the invention. The objects and advantages of the invention, may be realized and attained by means of the instrumentalities and combinations particularly pointed out in the appended claims.

20 To achieve the objects and in accordance with the purpose of the invention, as embodied and broadly described herein, the present invention relates to a system for implementing an image-based document handling and delivery system. The system uses a

planning component, an execution component, and a control component. The planning component gathers information about an infrastructure, a current document handling and delivery system and a methodology used by an entity. The implementation component provides the entity with a plurality of process maps that provide a plurality of step-by-step instructions for executing the image-based document handling and delivery system (the “Imaging System”). The control component provides the entity with a plurality of contingency guidelines and procedures for monitoring and maintaining performance of the executed image-based document handling and delivery system.

In a preferred embodiment, the planning component includes a list of frequently asked questions (FAQs) that provides the entity with an answer to each one of various common questions about the Imaging System, and a survey for the entity to complete that provides information about the entity’s current paper-based document handling and delivery system and methodology in order to assist in efficiently executing a conversion from the paper-based document handling and delivery system to the Imaging System.

The execution component preferably includes the process maps for the entity to follow to execute the Imaging System, as well as a plurality of process maps that detail how each type of imaged document will be handled when it arrives at a destination. The execution component also preferably provides information on a plurality of paper document formats with which the Imaging System is designed to work.

The control component preferably includes contingency guidelines and procedures for handling a plurality of types of errors and situations that may be encountered during the

regular course of business while using the Imaging System, as well as a reporting component that reports on a plurality of performance factors of the Imaging System.

The accompanying drawings, which are incorporated in and constitute a part of this specification, illustrate the embodiments of the invention and, together with the description,
5 serve to explain the principles of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

The preferred embodiments of this invention will be described in detail, with reference to the following figures, wherein:

10 Fig. 1 is a block diagram of a system for implementing an image-based document handling and delivery system, in accordance with the present invention;

Fig. 2 is a block diagram of a preferred planning component, in accordance with the present invention;

15 Figs. 3A-3E show a preferred survey used by the planning component and designed for an insurance industry entity, in accordance with the present invention;

Fig. 4 is a block diagram of a preferred implementation component, in accordance with the present invention;

Figs. 5A and 5B are sample process maps used by the implementation component and designed for an insurance industry entity, in accordance with the present invention;

20 Figs. 6A-6D show a table of document types used by the implementation component and designed for an insurance industry entity, in accordance with the present invention;

Fig. 7 is a block diagram of a preferred control component, in accordance with the present invention;

Fig. 8 is a block diagram of preferred contingency guidelines, in accordance with the present invention;

5 Figs. 9A-9D show a table of error resolution guidelines used by the control component and designed for an insurance industry entity, in accordance with the present invention;

 Figs. 10A-10I show a failure modes effects analysis table used by the control component and designed for an insurance industry entity, in accordance with the present invention;

10 Fig. 11 is a flowchart of steps performed in a preferred method of implementing an image-based document handling and delivery system, in accordance with the present invention; and

 Fig. 12 is flowchart of steps performed in a preferred method of implementing the step of providing performance reports to the entity in Fig. 11.

15

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

 An image-based document handling and delivery system can be particularly advantageous to an entity that has to process and send many different types of documents. For example, the insurance industry is one industry for which an image-based document
20 handling and delivery system is particularly suited. Thus, the present invention will be described in the context of an insurance broker or agent that wishes to send image-based documentation to an insurance provider. However, it should be appreciated that the present

invention is applicable to any entity which would like to implement an image-based document handling and delivery system.

In the insurance industry, information about an insured party is typically collected by having the insured party fill out a plurality of standardized paper forms. In many instances, the
5 insured party must also provide supporting paper documentation, e.g., an Attending Physician's Statement (APS) to support a claim under a health insurance policy for reimbursement of medical expenses paid by the insured party to the attending physician. For entities in the insurance industry, an image-based document handling and delivery system can reduce the time it takes to process an insurance application or claim, can reduce a number of
10 lost documents, and can reduce the insurance provider's processing costs.

Figure 1 is a block diagram of a system 100 for implementing an image-based document handling and delivery system (the "Imaging System"), in accordance with a preferred embodiment of the present invention. The system 100 comprises a planning component 110, an implementation component 110, and a control component 130. The
15 planning component 110 gathers information about an entity's infrastructure and its current paper-based document handling and delivery system and methodology. The planning component 110 also preferably provides the entity with information about the Imaging System.

The implementation component 120 provides the entity with a plurality of process
20 maps that provide a plurality of step-by-step instructions for executing the Imaging System. In addition, the implementation component 120 can optionally provide a plurality of process maps that detail how imaged documents will be handled when they arrive at a destination.

The implementation component 120 also preferably provides the entity with a plurality of process maps that outline the entity's current document handling and delivery system, so that the entity can compare its current paper-based document handling and delivery system to the Imaging System.

5 The control component 130 provides the entity with a plurality of guidelines and procedures for monitoring and maintaining performance of the executed Imaging System.

As shown in Figure 2, the planning component 110 preferably comprises a list of frequently asked questions (FAQs) 112 and a survey (questionnaire) 114 for the entity to complete. The FAQs 112 provide the entity with an answer to each one of a plurality of
10 common questions that business entities have concerning a conversion from a paper-based document handling and delivery system to an Imaging System. Sample FAQs for an insurance industry entity are shown below:

15

***Q** I don't currently have an image system in my office but want to take advantage of this process. How can I get started ?*

20

25

A There are many ways to implement image processing in your office, from having a total imaging system in your facility to using imaging services from a provider. We can supply names of various imaging vendors that we work with, or you can conduct your own search. We will also send you our Imaging Solutions Guide. This guide provides an overview of what it takes to use an imaging system for transmitting documents to us. In addition, one of our Team Leaders will help you complete our client survey to evaluate your

existing document handling and delivery systems and processes and technology and gain an understanding of your expectations.

5 ***Q If I implement an imaging system for your imaging process, can I use the imaging system for transmitting imaged documents to other insurance carriers?***

10 **A** The process is designed to be image system independent; that is, we accept transmitted images from various imaging systems that can provide the format we need. This means that the imaging system you have installed at your site can be used for internal purposes as well as for other insurance carriers.

15 ***Q Will I have to purchase new equipment to take advantage of this new process?***

20 **A** If you don't currently have an image system, you will need equipment to allow for scanning and storing of paper documents and files, and communications equipment for transmitting the imaged documents to us. You may also be required to update your existing workstations, depending on your vendor's technical requirements.

25 ***Q I have an existing imaging system implemented in my office. Can I just use what I have, or will I have to purchase new equipment?***

30 **A** Our imaging solution is designed to work with many different imaging systems, and we would be happy to analyze your current system for compatibility. You may have to purchase additional equipment in order to transmit the imaged documents to us if you don't already have this capability.

35 ***Q Can I use my existing document types, indexing schemes, and scanning procedures?***

40 **A** The Imaging Solutions Guide provides information on NAILBA standards for imaged document types. We will be happy to meet with you to review how other clients have implemented an imaging solution.

45 ***Q OK, give me the facts. Is this imaging process really better than simply mailing in the paper-based documents? Why do I want to do this?***

5 A Both the insurance carrier and the client can benefit from
the reductions in costs and cycle times provided by imaging systems.
An imaging solution can immediately reduce processing cycle time by
the 1 1/2 days or more normally required for mailing paper documents.
10 This is coupled with a total reduction in misplaced or lost files after
they reach the insurance carrier, and a decrease in shipping costs.
Plus, with imaging, we can provide automatic receipts and our case
managers have up-to-the minute status on new cases. We have
testimonials from clients who have implemented an imaging solution
and can make these available to you upon request.

***Q What services do you offer for setting up an
imaging system?***

15 A We will assign a dedicated Team of IT and Business
resources to assist you through implementation and execution of an
imaging system.

Q Will you train my staff?

20 A Members of your staff will be invited to participate as
Team members, and will become familiar with the image process.
You have the option of having the insurance carrier and imaging
vendor train your staff or you may choose to have team members from
your office train your staff.

25 ***Q How do I transmit the imaged documents to you?***

30 A Currently, our clients are transmitting imaged documents
to us via dedicated communication lines. A number of these are using
VPN's (virtual private networks) that are associated with the imaging
system vendor.

Q What will this cost me?

35 A There may be costs associated with purchasing and
setting up imaging system equipment, as well as any costs paid to the
imaging vendor. However, the benefits of reduced mail expenses and
cycle time far outweigh the costs.

***Q How long will it take to implement and execute an
imaging system for me?***

40 A Depending on the imaging vendor and the imaging
equipment needed, it can take anywhere from 30 to 120 days.

Q What resources are needed at my end to set this imaging system and process up?

5 ***A*** We have found through experience that it is best if you have a dedicated person assigned to the project team. This person will be involved in all team meetings, and will become your in-house expert. We will assign a Project Leader who will lead the team through the implementation process and will keep you informed on the progress of the implementation.

10 ***Q Exactly what documents do you need for me to scan and transmit to you?***

15 ***A*** This question will be answered during a period where we evaluate your requirements prior to starting the imaging system implementation.

20 ***Q Will this imaging system also be capable of handling documents other than applications, such as address changes, beneficiary changes, and other insurance policy service transactions documents?***

25 ***A*** During the requirements evaluation period, the team will obtain an understanding of the scope of the implementation project. If the goal is to transmit all of your documents in imaged format, the implementation will include document types for all insurance policy service transaction documents.

30 ***Q If I'm scanning and transmitting application documents to you, what do I do with the originals of the scanned, transmitted documents?***

35 ***A*** Our goal is to eliminate the need to receive original documents on a daily basis. Guidelines for handling original documents are included in our Imaging Solutions Guide.

40 ***Q Will I be required to sign a contract for this arrangement?***

A You will enter into a separate contract with the imaging vendor and with us.

Q What happens when problems with my imaging system occur? Do you simply fix them, or do we have to start over?

5 **A** The Project Team has experience in dealing with imaging and related projects and will be available to assist when problems occur. In addition, documents that outline a number of risk factors and potential solutions are found in the Imaging Solutions Guide.

Q The imaging system you propose is not compatible with those imaging systems used by our other insurance carriers. Since we don't want two imaging systems, what can you do?

10 **A** We are primarily interested in receiving the imaged documents and accompanying data in a format required by our imaging systems here. We can analyze the format your imaging system is capable of transmitting and check for compatibility. Custom programming may be necessary in order for us to receive your imaged documents in the most efficient manner.

15 ***Q How much will use of an imaging system speed up the insurance application approval process?***

20 **A** Cycle time will be improved by a minimum of 3 to 5 days, and, as teams become more familiar with the imaging process, cycle time may improve by up to 10 days.

Q What type of scanner do I need?

25 **A** Scanning equipment must be compatible with the imaging system you have or are installing. The type of scanning equipment recommended will also be dictated by your anticipated use of the imaging system and volumes of documents involved.

Q How fast should my scanner be?

30 **A** This will depend on the volume of insurance applications and paper files you expect to scan. Your imaging system vendor should be able to offer specific recommendations based on your business plans, processes, and forecasts.

35 ***Q What is this I'm hearing about a duplex scanner?***

40 **A** Scanning equipment is available in both simplex (one document side scanned) and duplex (both document sides scanned) models. For high scanning volumes that process a large percentage of forms printed on both sides of the paper, duplex scanners may be a worthwhile investment.

Q Is my transmitted imaged data secure?

5 **A** We use a private network to transmit imaged data between the imaging vendor and our production center. We cannot guarantee data security between the customer and the imaging vendor/intermediary.

10 **Q If I use an imaging system for all insurance carriers, how can I be sure that the right imaged documents get to the right insurance carrier?**

15 **A** Your imaging system will probably need custom software in order to transmit imaged documents to multiple insurance carriers. Your imaging system vendor should be able to help you with this issue. In addition, effective quality controls, and exception processing is necessary with all insurance carriers to help ensure the imaged documents get to the appropriate parties.

20 **Q Can I use the imaging system for documents that are not sent to an insurance carrier?**

A This depends on the individual implementation of the imaging system at your business, and how you have the configured the imaging system to handle different documents.

25 **Q What types of problems have been experienced with this imaging process?**

30 **A** We follow rigorous project management principles when implementing a new imaging process. While each imaging process may be slightly different, the learnings from past projects are known and shared to mitigate any anticipated problems.

Q I have multiple offices across the country. What options do I have?

35 **A** The preferred method would be to have a central imaging processing center to ensure consistency. However, we can accommodate multiple imaging processing centers depending on customer preference and cost.

Q What do I do with CWA and checks?

A Checks will be imaged with the application documents, and procedures for CWA and COD (charge on delivery) our included in our Imaging Solutions Guide.

An example survey 114 for an insurance industry entity is shown in Figures 3A-3E. The survey 114 preferably includes a plurality of questions dealing with a plurality of operational issues, including, for example, types of documents to be imaged, number of facilities for the entity, a contact person for the entity, an anticipated volume of documents to be imaged and other similar issues (Figs. 3A and 3B), a plurality of questions dealing with a plurality of technical issues, including, for example, a description of hardware currently used by the entity, a type of network currently used by the entity, a format to be used to transmit imaged documents, and other similar issues (Figs. 3C and 3D), and a contact list (Fig. 3E).

As shown in Figure 4, the implementation component 120 preferably comprises a plurality of process maps 122 and a plurality of document formats 124. The process maps 122 provide the entity with a plurality of detailed step-by-step instructions for executing a plurality of various processes related to the Imaging System. Some of the process maps 122 provided to the entity are preferably process maps of the entity's current paper-based document handling and delivery system, so that the entity can compare its current document handling and delivery system to the new Imaging System. In addition, some of the process maps 122 may detail how the imaged documents will be handled when they arrive at their destination following transmission of the imaged document to another entity, such as, for example, an insurance provider if the entity is an insurance broker or agent.

Figures 5A and 5B show sample process maps for the processing of a new insurance application by an insurance broker (the entity in this example). The process map shown in Fig. 5A illustrates the steps conducted by the insurance broker when processing new

insurance applications prior to implementing the Imaging System. In this example, the insurance broker's current document handling and delivery system supports some imaging, but some insurance applications are still delivered to the insurance provider via traditional mail delivery services.

5 As shown in Fig. 5A, the insurance broker's process for the handling and delivering of new insurance applications to the insurance provider, prior to implementing the Imaging System, involves the use of a mail and copy room 200, a sort team 210, a sales team 220, a licensing team 230, a branch team 240, and an image team 250.

10 A plurality of new insurance applications and other new mail are first received by the mail and copy room 200 and subsequently sent to the sort team 210. As step S212 indicates, the sort team 210 members are assigned by rotation. At step S214, the new mail is sorted into individual team member bins in accordance with work assignments. At step S216, the sort team 210 notifies the sales team 220 that the new mail is ready for pickup. In the present example, this notification is done via e-mail.

15 At step S222, the sales teams 220 segregate the new applications from the other mail. At step S224, the sales teams 220 determine if any licensing documents are attached to any of the new applications. If licensing documents are attached to the new application, the new application (together with the licensing documents) is routed directly to the licensing team 230 at step S226. Otherwise, if licensing documents are not attached to the new application,
20 the new application is routed to the branch team 240 at step S227.

At step S232, the licensing team 230 processes the licensing documents included with the new application and returns the new application and the related licensing documents to the sales teams 220, which then routes the new application and other related documents to the branch team 240 at step S227.

5 At step S242, the branch team enters data related to the new application (e.g., name and social security number of an insured) into a database. At step S244, it is determined if the new application is one which can be imaged based on where the new application is being sent. If the application is one that can be imaged, the new application is sent to the image team 250. Otherwise, if the new application is not one that can be imaged, the new
10 application is sent to the mail and copy room 200 for copying at step S246.

 The process then proceeds to step S202, where a plurality of documents that make up the new application are copied and sent back to the branch team 240. The process then proceeds to step S248, where the branch team bundles the copies received from the mail and copy room 200. At step S249, the original and copies of the new application documents are
15 returned to the sales teams 220.

 The sales teams 220, at step S228, separate the originals of the new applications from the copies of the new applications and files the copies of the new applications. At step S229, the sales teams 220 send the originals of the new applications to the mail and copy room 200 for sorting and mailing. At step S204, the mail and copy room 200 sends the originals of the
20 new applications to the insurance provider through an appropriate mail service.

If the new application is sent to the image team 250 at step S244, the image team 250 images the new application at step S252, and boxes the originals of the new application for storage at step S254.

For many entities, their current processes for handling and delivering documents have evolved and changed over time in response to their changing needs and objectives. Often, these processes are not well documented (e.g., the entities have not prepared process maps detailing their current processes). Documenting the entity's current document handling and delivery processes (for example, with process maps) can be an important tool, not only for determining the potential advantages of implementing the Imaging System, but also for gaining a better understanding of the entity's current document handling and delivery system. Accordingly, an aspect of the present invention is providing the entity with process maps that document the entity's existing document handling and delivery system.

Fig. 5B illustrates the process map for the steps used in processing new applications after the Imaging System has been implemented. A plurality of new insurance applications and other new mail is first received by the mail and copy room 200 and subsequently sent to the sort team 210. As step S212' indicates, the sort team 210 members are assigned by rotation in a manner similar to that explained above. At step S214', the new mail is sorted into individual team member bins in accordance with work assignments. At step S216', the sort team 210 notifies the sales teams 220 that the new mail is ready for pickup.

At step S222', the sales teams 220 segregate the new applications from other mail. At step S224', the sales teams 220 determine if any licensing documents are attached to any of

the new applications. If licensing documents are attached to a new application, the new application and attached documents are routed directly to the licensing team 230 at step S226'. Otherwise, if a new application does not have any licensing documents attached thereto, the new application is routed to the branch team 240 at step S227'.

- 5 At step S232', the licensing team 230 processes the licensing documents and returns the new application and the attached licensing documents to the sales teams 220, which then routes the new application to the branch team 240 at step S227'.

- 10 At step S242', the branch team enters data related to the new application (e.g., name and social security number of an insured) into a database. At step S244', the new application is sent to the image team 250. The image team 250 scans the new application and converts the paper-based new application into an electronic image of the new application at step S252', and boxes the original paper-based new applications for storage at step S254'.

- 15 The document formats 124 (Fig. 4) are preferably a list of the document types with which the Imaging System is designed to operate. The list of document types is preferably provided to the entity in table format, as shown in Figures 6A-6D, which are tables of document types involved in the processing of a new insurance application. The tables preferably include a first column 300 that lists the type of document, a second column 310 that defines the document type 310, a third column 320 that lists examples of information included in the document type, and a fourth column 340 that lists proposed file names for
20 each imaged document type.

As shown in Figure 7, the control component 130 preferably comprises a plurality of contingency guidelines 132 and a reporting component 134. The contingency guidelines 132 are generally step-by-step instructions for handling various types of errors and situations that may be encountered during the regular course of business while using the Imaging System.

- 5 The reporting component 134 generally provides a plurality of reports on a plurality of performance factors relating to the Imaging System.

As shown in Figure 8, the contingency guidelines 132 preferably comprise a plurality of error resolution guidelines 132A and a failure modes effects analysis (FMEA) 132B. The error resolution guidelines are preferably provided in table form, as shown in Figures 9A-9D, 10 which are tables of error resolution guidelines for an insurance broker or agent. The error resolution guidelines 132A provide solutions for handling each of the various possible errors that may occur in the usage of the Imaging System. The tables preferably include a first column 400 that lists possible errors, a second column 410 that lists the person or team responsible for identifying the error, a third column 420 that lists the person or team 15 responsible for resolving the error, a fourth column 430 that lists possible ways to resolve the error, a fifth column 440 that lists the type of communication to be used to report the error, a sixth column 450 that lists preferred timeframes for resolving the error, and a seventh column 460 that lists the person or team responsible for confirming that the error was corrected.

As an illustrative example, if an image document is illegible, an item 1 in Fig. 9A may 20 be referred to for a recommendation of a resolution for such a problem. According to item 1, a Quality Assurance team can be tasked with resolving the problems of this type (as shown in

column 410). In such a situation, the insurance provider to whom the illegible imaged document was transmitted will notify the entity that an illegible imaged document situation has occurred (as indicated in column 430). According to the recommended resolution guidelines, following receipt of the notification, the entity should re-scan the entire original
5 paper document, resulting in a new imaged document as indicated in column 430). The entity should then transmit the new imaged document to the insurance provider. Upon receipt of the transmitted new imaged document, the insurance provider should notify the entity of a legibility status of the new imaged document.

The FMEA 132B is preferably also in table form, as shown in Figures 10A-10F, which
10 are tables listing a plurality of possible failure modes of the Imaging System, a plurality of possible causes for each possible failure mode and one or more recommended actions to take to resolve such failure modes. The tables preferably include a first column 600 that identifies the item or process step that could fail, a second column 605 that identifies the potential failure, a third column 610 that identifies the potential effect of the failure, a fourth column
15 615 that holds a value that corresponds to the severity of the failure, a fifth column 620 that lists the possible causes of the failure, a sixth column 625 that holds a value that corresponds to the likelihood of the failure occurring, a seventh column 630 that lists current procedures (controls) that are in place to prevent the failure, an eighth column 635 that holds a value that corresponds to the detectability of the potential failure, a ninth column 640 that holds a value
20 (called the Risk Priority Number or RPN) that is derived by multiplying the numbers in columns 615, 625 and 635, a tenth column 645 that lists recommended actions for correcting

the failure, and an eleventh column 650 for optionally listing a preferred amount of time for correcting the problem.

In the example illustrated in Figs. 10A-10I, the severity numbers in column 615 and the occurrence numbers in column 625 are higher as the potential severity and the likelihood
5 of the failure occurring, respectively, goes up. The detection number in column 635 is higher as the difficulty of detecting the failure goes up. The RPN number is derived by multiplying the severity, occurrence, and detection numbers in columns 615, 625 and 635, respectively. The RPN number serves as an indicator of the seriousness of the potential failure.

The various documents, tables and/or databases that make up the planning component
10 110, implementation component 120, and control component 130 may be provided to the entity in electronic form, e.g., as computer files, or may be delivered in hard copy form to the entity. If the components are provided in electronic form, they are preferably provided on a computer storage medium, preferably a portable computer storage medium, such as a CD ROM, a writable optical disk, a floppy disk, or the like.

15 Figure 11 is a flowchart illustrating a plurality of steps conducted in a preferred method for implementing the Imaging System, in accordance with the present invention. At step S700, the entity is provided with information about the Imaging System. As discussed above, the information is preferably in the form of FAQs about the Imaging System.

At step S710, information is obtained from the entity about the entity's existing
20 document handling and delivery system. As discussed above, this information is preferably

obtained by providing the entity with a survey for the entity to complete and return to a provider of the survey.

At step S720, the entity is provided with the process maps, documents formats and contingency guidelines for the Imaging System, as explained above. At step S730, feedback
5 is provided to the entity regarding the performance of the Imaging System in the form of immediate notification of certain types of errors, as discussed above. At step S740, performance reports are provided to the entity.

Figure 12 is a flowchart of a preferred method for implementing the performance report providing step (step S740) of Fig. 11. At step S742, the performance of the Imaging
10 System is monitored by monitoring the errors that occur in the Imaging System. At step S744, performance reports are generated and sent to the entity based on the information gathered at step S742.

While this invention has been described in conjunction with the specific embodiments outlined above, it is evident that many alternatives, modifications and variations will be
15 apparent to those skilled in the art. As discussed above, although the present invention has been described in the context of implementing an Imaging System for processing insurance applications and related documents, it is applicable to any type of document and can be used by any entity that would like to implement an image-based document handling and delivery system. Further, although specific examples of formats for the information provided to and
20 obtained from the entity have been provided (e.g., formats for the survey, error resolution guidelines, FMEA, and FAQs), other formats can be used while still falling within the scope

of the present invention. Accordingly, the preferred embodiments of the invention as set forth above are intended to be illustrative, not limiting. Various changes may be made without departing from the spirit and scope of the invention as defined in the following claims.

WHAT IS CLAIMED IS:

1. A system for implementing an image-based document handling and delivery system, comprising:

a planning component that gathers information about an infrastructure, a
5 current document handling and delivery system and a methodology used by an entity;

an implementation component that provides the entity with a plurality of
process maps that provide a plurality of step-by-step instructions for executing the image-
based document handling and delivery system; and

a control component that provides the entity with a plurality of contingency
10 guidelines and procedures for monitoring and maintaining performance of the executed
image-based document handling and delivery system.

2. The system of claim 1, wherein the planning component also provides the
entity with information about the image-based document handling and delivery system.

15

3. The system of claim 2, wherein the information about the image-based
document handling and delivery system comprises a list including a plurality of frequently
asked questions and a corresponding answer for each of the frequently asked questions.

20 4. The system of claim 1, wherein the planning component comprises a
questionnaire for the entity to complete.

5. The system of claim 4, wherein the questionnaire for the entity to complete comprises:

- a plurality of questions related to a plurality of operational issues and a
- 5 plurality of technical issues; and
- a request for a contact list.

6. The system of claim 1, wherein the implementation component comprises:

- at least one process map; and
- 10 information on a plurality of document formats for use with the image-based document handling and delivery system.

7. The system of claim 6, wherein the at least one process map comprises:

- a process map of the entity's existing document handling and delivery system;
- 15 and
- a process map for at least a portion of the image-based document handling and delivery system.

8. The system of claim 7, wherein the process map for the at least a portion of the

20 image-based document handling and delivery system comprises:

- a process map of a plurality of steps to be taken by the entity for executing the image-based document handling and delivery system; and

a process map of a plurality of steps to be taken by a receiver of the document for executing the image-based document handling and delivery system.

9. The system of claim 6, wherein the information on the plurality of document
5 formats comprises:

a definition of each of the document types;

one or more examples of information covered by each of the document types;

and

a proposed file name for an imaged version of each of the document types.

10

10. The system of claim 9, wherein the information on the document formats is provided in a table form.

11. The system of claim 1, wherein the control component comprises:

15 a plurality of contingency guidelines for addressing each of a plurality of predetermined errors and situations that may arise in the use of the image-based document handling and delivery system; and

a reporting component that provides one or more reports on a plurality of performance factors relating to use of the image-based document handling and reporting
20 system.

12. The system of claim 11, wherein the contingency guidelines comprise error a plurality of resolution guidelines that provide one or more possible solutions for each of the predetermined errors and situations that may arise in the use of the image-based document handling and delivery system.

5

13. The system of claim 12, wherein the error resolution guidelines comprise:

- a list of a plurality of potential errors;
- an identity of an entity responsible for identifying an occurrence for each of the predetermined errors;
- an identity of an entity responsible for correcting each of the predetermined errors;
- one or more proposed solutions for each of the predetermined errors;
- one or more proposed communication mechanisms for reporting each of the predetermined errors;
- a recommended time frame for correcting each of the predetermined errors;

and

- an identity of entity responsible for confirming that an error occurrence has been corrected.

20

14. The system of claim 11, wherein the contingency guidelines comprise a failure modes effects analysis that identifies a plurality of possible failure modes, suggests one or

more possible causes of each of the failure modes, and provides one or more recommendations for correcting each of the failure modes.

15 15. A system for implementing an image-based document handling and delivery
5 system, comprising:

 a list of a plurality of frequently asked questions about the image-based
document handling and delivery systems and a corresponding answer for each of the
frequently asked questions;

 a questionnaire for an entity to complete;

10 at least one process map that provides a plurality of steps for executing the
image-based document handling and delivery system;

 information on a plurality of document formats for use with the image-based
document handling and delivery system;

15 a plurality of contingency guidelines for addressing a plurality of
predetermined errors and situations that may arise in use of the image-based document
handling and delivery system; and

 a reporting component that provides one or more reports on a plurality of
performance factors relating to use of the image-based document handling and delivery
system.

20

 16. The system of claim 15, wherein the questionnaire for the entity to complete
comprises:

a plurality of questions related to a plurality of operational issues and technical issues; and

a request for a contact list.

- 5 17. The system of claim 15, wherein the at least one process map comprises:
a process map of the entity's existing document handling and delivery system;
and
a process map for at least a portion of the image-based document handling and delivery system.

10

18. The system of claim 17, wherein the process map for the at least a portion of the image-based document handling and delivery system comprises:

a process map of a plurality of steps to be taken by the entity for executing the image-based document handling and delivery system; and

- 15 a process map of a plurality of steps to be taken by a receiver of the document for executing the image-based document handling and delivery system.

19. The system of claim 15, wherein the information on the plurality of document formats comprises:

20 a definition for each of a plurality of document types;

one or more examples of information covered by each of the document types;

and

a proposed file name for an imaged version of each of the document types.

20. The system of claim 19, wherein the information on the plurality of document formats is provided in a table form.

5

21. The system of claim 15, wherein the contingency guidelines comprise error a plurality of resolution guidelines that provide one or more solutions for the predetermined errors that may arise in use of the image-based document handling and delivery system.

10

22. The system of claim 21, wherein the error resolution guidelines comprise:

a list of potential errors;

an identity of an entity responsible for identifying an occurrence for each of the predetermined errors;

15

an identity of an entity responsible for correcting each of the predetermined errors;

one or more proposed solutions for each of the predetermined errors;

one or more proposed communication mechanisms for reporting each of the predetermined errors;

a recommended time frame for correcting each of the predetermined errors;

20 and

an identity of an entity responsible for confirming that an error occurrence has been corrected.

23. The system of claim 15, wherein the contingency guidelines comprise a failure modes effects analysis that identifies a plurality of possible failure modes, suggests one or more possible causes of each of the failure modes, and provides one or more
5 recommendations for correcting each of the failure modes.

24. A memory for a computer that stores:

- a list of a plurality of frequently asked questions about an image-based document handling and delivery system and a corresponding answer for each of the frequently
10 asked questions;
- a questionnaire for an entity to complete;
- at least one process map that provides a plurality of steps for executing the image-based document handling and delivery system;
- information on a plurality of document formats for use with the image-based
15 document handling and delivery system; and
- a plurality of contingency guidelines for addressing a plurality of predetermined errors and situations that may arise in use of the image-based document handling and delivery system.

20 25. The memory of claim 24, wherein the questionnaire for the entity to complete comprises:

a plurality of questions related to a plurality of operational issues and technical issues; and

a request for a contact list.

5 26. The memory of claim 24, wherein the at least one process map comprises:

 a process map of the entity's existing document handling and delivery system;

 and

 a process map for at least a portion of the image-based document handling and delivery system.

10

 27. The memory of claim 26, wherein the process map for the at least a portion of the image-based document handling and delivery system comprises:

 a process map of the steps to be taken by the entity for executing the image-based document handling and delivery system; and

15

 a process map of the steps to be taken at a document's destination for executing the image-based document handling and delivery system.

 28. The memory of claim 24, wherein the information on a plurality of document formats comprises:

20

 one or more definitions for each of the document types;

 one or more examples of information covered by each of the document types;

and

a proposed file name for an imaged version of each of the document types.

29. The memory of claim 28, wherein the information on the plurality of document formats is provided in a table form.

5

30. The memory of claim 24, wherein the contingency guidelines comprise error a plurality of resolution guidelines that provide one or more solutions for each of the predetermined errors that may arise in use of the image-based document handling and delivery system.

10

31. The memory of claim 30, wherein the error resolution guidelines comprise:

a list of potential errors;

an identity of an entity responsible for identifying an occurrence for each of the predetermined errors;

15 an identity of an entity responsible for correcting each of the predetermined errors;

one or more proposed solutions for each of the predetermined errors;

one or more proposed communication mechanisms for reporting each the predetermined errors;

20 a recommended time frame for correcting each of the potential errors; and

an identity of an entity responsible for confirming that an error occurrence has been corrected.

32. The memory of claim 24, wherein the contingency guidelines comprise a failure modes effects analysis that identifies a plurality of possible failure modes, one or more possible causes of each of the failure modes, and one or more recommendations for correcting
5 each of the failure modes.

33. A method of implementing an image-based document handling and delivery system, comprising the steps of:

gathering information about an entity's existing document handling and
10 delivery system;

providing the entity with at least one process map for executing the image-based document handling and delivery system; and

providing the entity with a plurality of guidelines and procedures for monitoring and maintaining performance of the image-based document handling and delivery
15 system.

34. The method of claim 33, further comprising the step of providing the entity with information about the image-based document handling and delivery system.

20 35. The method of claim 34, wherein the entity is provided with a list of a plurality of frequently asked questions about the image-based document handling and delivery system and a corresponding answer for each of the frequently asked questions.

36. The method of claim 33, wherein information is gathered about an entity's existing document handling and delivery system by providing a questionnaire for the entity to complete.

5

37. The method of claim 36, wherein the questionnaire comprises:
a plurality of questions related to a plurality of operational issues and technical issues; and
a request for a contact list.

10

38. The method of claim 33, further comprising the step of providing the entity with information on a plurality of document formats for use with the image-based document handling and delivery system.

15

39. The method of claim 33, wherein the entity is provided with:
a process map of the entity's existing document handling and delivery system;
and
a process map for at least a portion of the image-based document handling and delivery system.

20

40. The method of claim 39, wherein the entity is provided with:

a process map of a plurality of steps to be taken by the entity for executing the image-based document handling and delivery system; and

a process map of a plurality of steps to be taken by a receiver of the document for executing the image-based document handling and delivery system.

5

41. The method of claim 38, wherein the step of providing the entity with information on the document formats for use with the image-based document handling and delivery system comprises providing the entity with:

a definition of each of the document types;

10

one or more examples of information covered by each of the document types;

and

a proposed file name for an imaged version of each of the document types.

15

42. The method of claim 41, wherein the information on the document formats is provided in a table form.

20

43. The method of claim 33, wherein the step of providing the entity with the guidelines and procedures for monitoring and maintaining the performance of the image-based document handling and delivery system comprises providing the entity with:

a plurality of contingency guidelines for addressing a plurality of predetermined errors and situations that may arise in use of the image-based document handling and delivery system; and

a reporting component that provides one or more reports on a plurality of performance factors relating to use of the image-based document handling and reporting system.

5 44. The method of claim 43, wherein the step of providing the contingency guidelines comprises providing a plurality of error resolution guidelines that provide one or more solutions for each of the predetermined errors that may arise in use of the image-based document handling and delivery system.

10 45. The method of claim 44, wherein the step of providing the error resolution guidelines comprise providing:

a list of predetermined errors;

an identity of an entity responsible for identifying an occurrences for each of the predetermined errors;

15 an identity of an entity responsible for correcting each of the predetermined errors;

one or more proposed solutions for each of the predetermined errors;

one or more proposed communication mechanisms for reporting each of the predetermined errors;

20 a recommended time frame for correcting each of the predetermined errors;

and

an identity of an entity responsible for confirming that an error occurrence has been corrected.

46. The method of claim 43, wherein the step of providing the contingency
- 5 guidelines comprises providing a failure modes effects analysis that identifies a plurality of possible failure modes, suggests one or more possible causes for each of the failure modes, and provides one or more recommendations for correcting each of the failure modes.

ABSTRACT OF THE DISCLOSURE

A system and method for implementing an image-based document handling and delivery system provides a business entity with information and guidance required to convert the entity's current document handling and delivery system and methodology to an image-based document handling and delivery system and methodology. The system and method of the present invention uses a planning component, an execution component, and a control component. The planning component gathers information about the entity's infrastructure and the entity's current paper-based document handling and delivery system and methodology. The implementation component provides the entity with process maps that provide step-by-step instructions for executing the image-based system and methodology. The control component provides the entity with guidelines and procedures for monitoring and maintaining the performance of the executed image-based system and methodology.

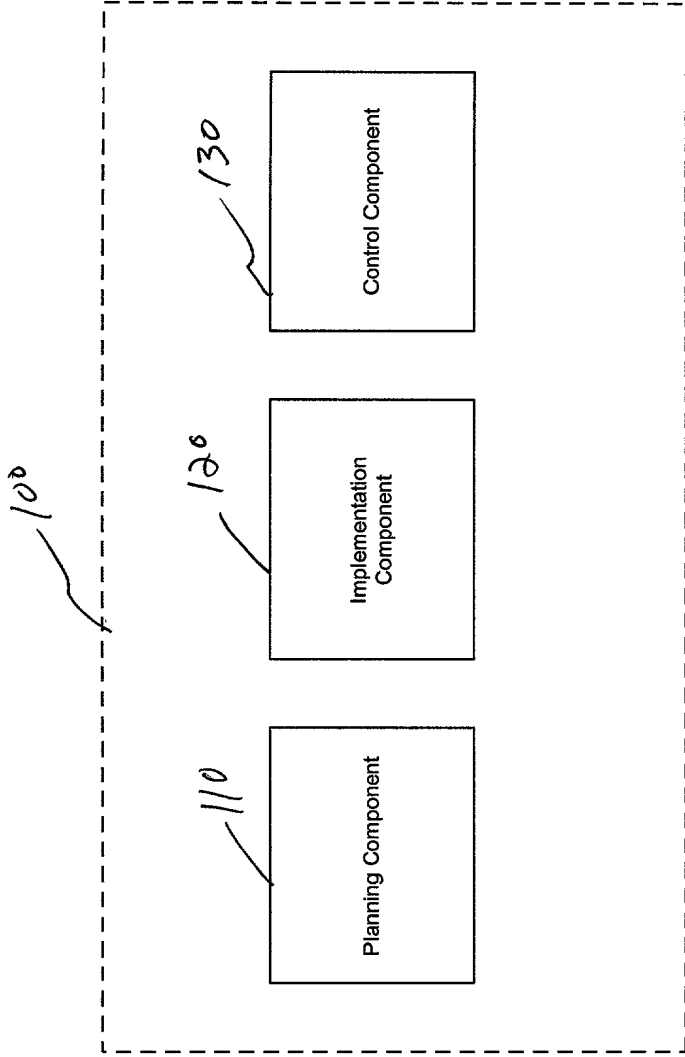
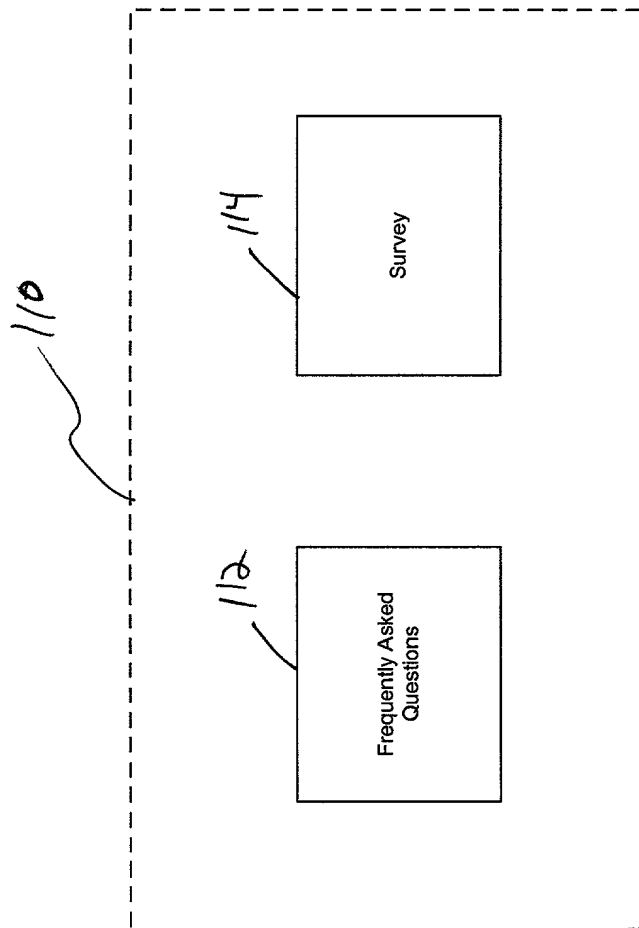


Fig. 1



2

Fig. 3A

OPERATIONAL ISSUES

Operations:

1. Is process currently in-house or outsourced?
☐ In-house ☐ Outsourced
2. Number of full time equivalents (FTE)? _____
3. Number of locations (if more than one)? _____
If multi-locations, is there a central processing center? ☐ Yes ☐ No
If yes, location? _____
4. Are images being transmitted to other carriers?
☐ Yes ☐ No If yes, which carriers?

5. Application volumes: How many transactions are processed in a given period on the average, minimum and maximum at peak times - in day, hour, month, and year?
 - Total year: _____
 - Highest month: _____
 - Lowest month: _____
6. Product applications to be imaged (ie Term, UL, LTC, Annuities...)?

7. Are procedures documented? ☐ Yes ☐ No
If yes, attach copy.
8. Transmission time requirements (ie. Continuous, scheduled times....)?

9. Management reporting needs?

10. How are test plans developed and monitored?

11. What are your paper retention guidelines?

12. Will there be a dedicated project manager assigned to work with us? ☐ Yes ☐ No

Please attach:

- ☐ Overall business process map showing where this process fits in
- ☐ High level process map for this process
- ☐ Detailed process map including time required for each step (if available)
- ☐ Information flows – including potential locations of inputs, description of input, ...
- ☐ Examples of inputs and outputs (ie application forms, reports...)

11. Check off the current document types to be imaged:

- ☐ Application
- ☐ Part 2
- ☐ Admin Forms
- ☐ Correspondence
- ☐ Checks
- ☐ Delivery Requirements
- ☐ Illustration
- ☐ Compliance Requests
- ☐ 1035 / Tax
- ☐ Collateral Assignment
- ☐ Questionnaire
- ☐ Financial Information
- ☐ Single Case Agreement
- ☐ APS
- ☐ Lab Tests
- ☐ EKG
- ☐ Inspections
- ☐ MVR
- ☐ Lab Receipt

Note: Most offices use only 7 or 8 standard document types.

NAILBA work type standards are included in our I-Scan Solutions Guide.

OPERATIONAL ISSUES

Measurements:

1. What are current cycle time measurements around this process (i.e. Date application signed, to date sent to carrier, to date policy settled)?

2. What are the quality measurements around this process?

3. For each measurement, what is the current level of performance (average/range)?

4. Current defect types and any available statistics?

5. What are current controls in place around process quality?

6. How are defects presently identified?

7. What is the process to correct defects?

8. What are current losses incurred as a result of defects?

9. What is the ideal benchmark for this process?

10. What are your expectations for quality level/improvements?

- Cost savings

- Quality improvements

- Speed/timeliness

- Accuracy

- Volume handling capacity

- Customer service

- Management reporting

Please attach examples of reports if available.

Fig. 3C

TECHNICAL ISSUES

1. Hardware to include Model, make and operating system software of mainframe/mini-workstations, and all other dedicated equipment (i.e. fax servers, printers, etc)

7. Typical types of transactions/work performed on the system?

8. Do other groups within the organization use the existing system for other applications? If yes, how many users are there on other applications, and how many for this process?

2. Are intelligent workstations at user desks? Or, are dumb terminals used?

3. Do you have a disaster recovery plan?

☐ Yes ☐ No

4. What is retention cycle?

5. Do you have a capacity plan? ☐ Yes ☐ No

6. Number of users on the system?
Average/minimum peak periods?

9. What is the performance/response time of the applications used?

10. What type of network is used in the organization?

11. What network is used for the systems involved in this process?

NOTES:

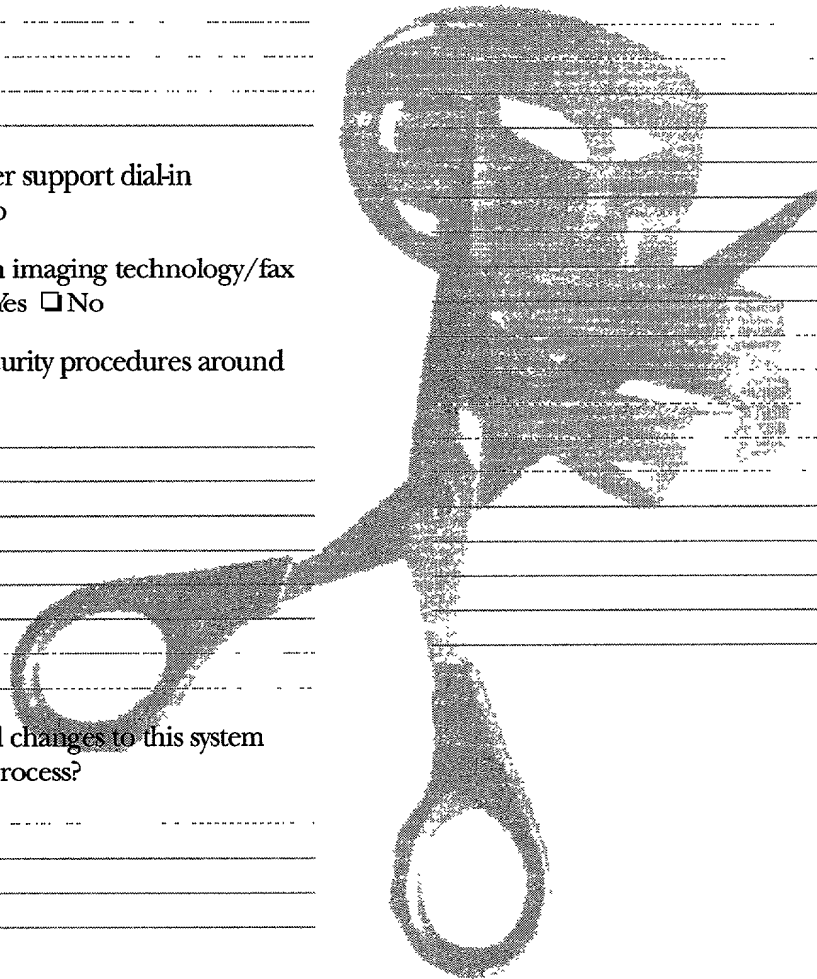
[illegible][illegible][illegible]A high-contrast, black and white image of a person's face, heavily distorted by horizontal lines and digital noise, suggesting a corrupted or glitched image. The image is characterized by a dense pattern of horizontal lines and a grainy, pixelated texture. The face is partially obscured by these lines, with the eyes and nose area being particularly prominent. The overall effect is one of digital corruption or a glitched image.

Are you equipped with imaging technology/fax server technology? ☐ Yes ☐ No

What are the main security procedures around your system?

What are the main security procedures around your system?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	5
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CONTACT LIST

NOTE: Please attach customer organization chart.

any one of the following: a) a process map, a document format, a process map and a document format, or a process map and a document format.

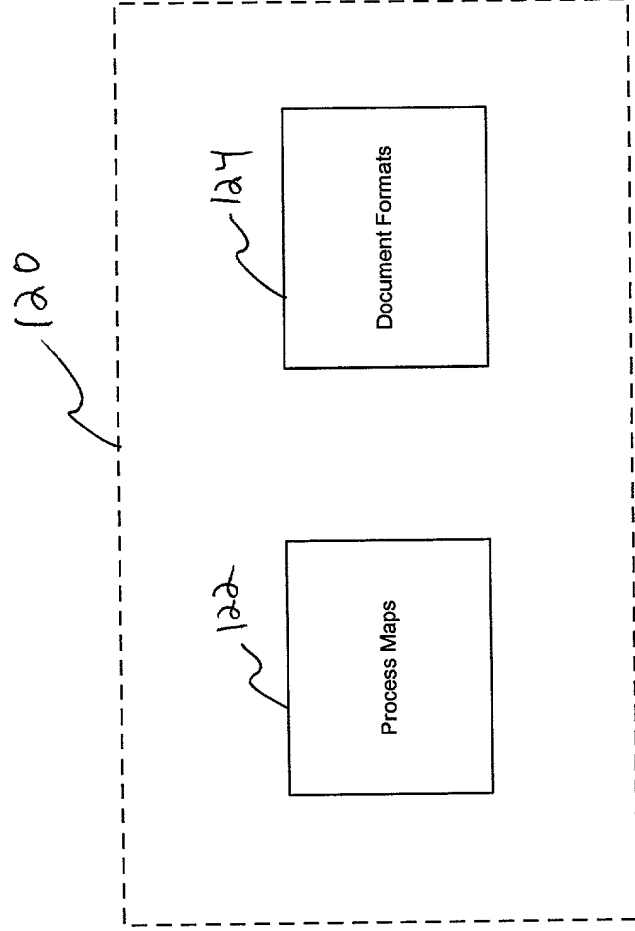


Fig. 4

NEW APPLICATION PROCESSING (Prior to Implementing Imaging System)

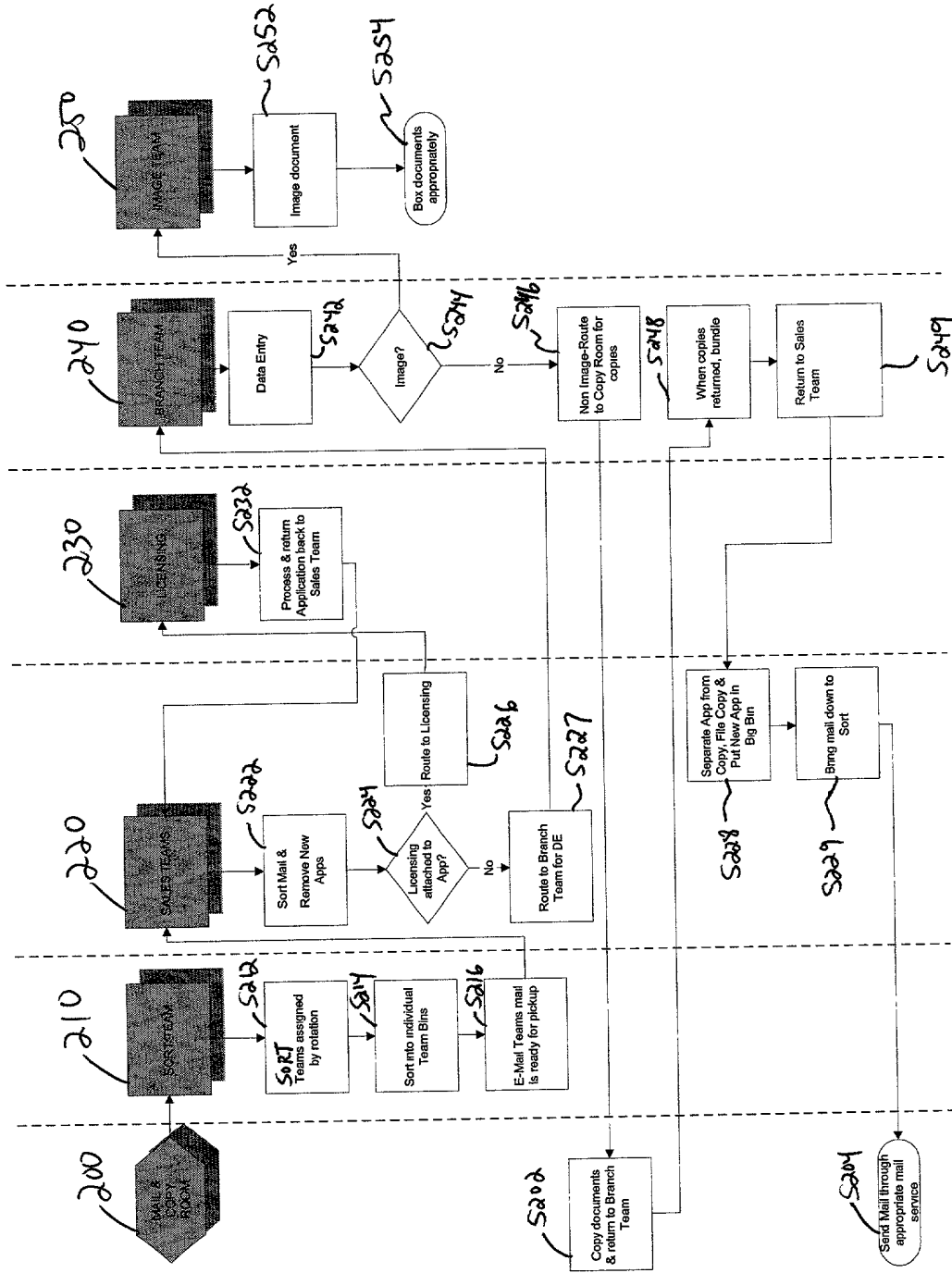


Fig. 5A

FIG. 5B is a flowchart illustrating the NEW APPLICATION PROCESSING (After Implementing Imaging System) process.

NEW APPLICATION PROCESSING (After Implementing Imaging System)

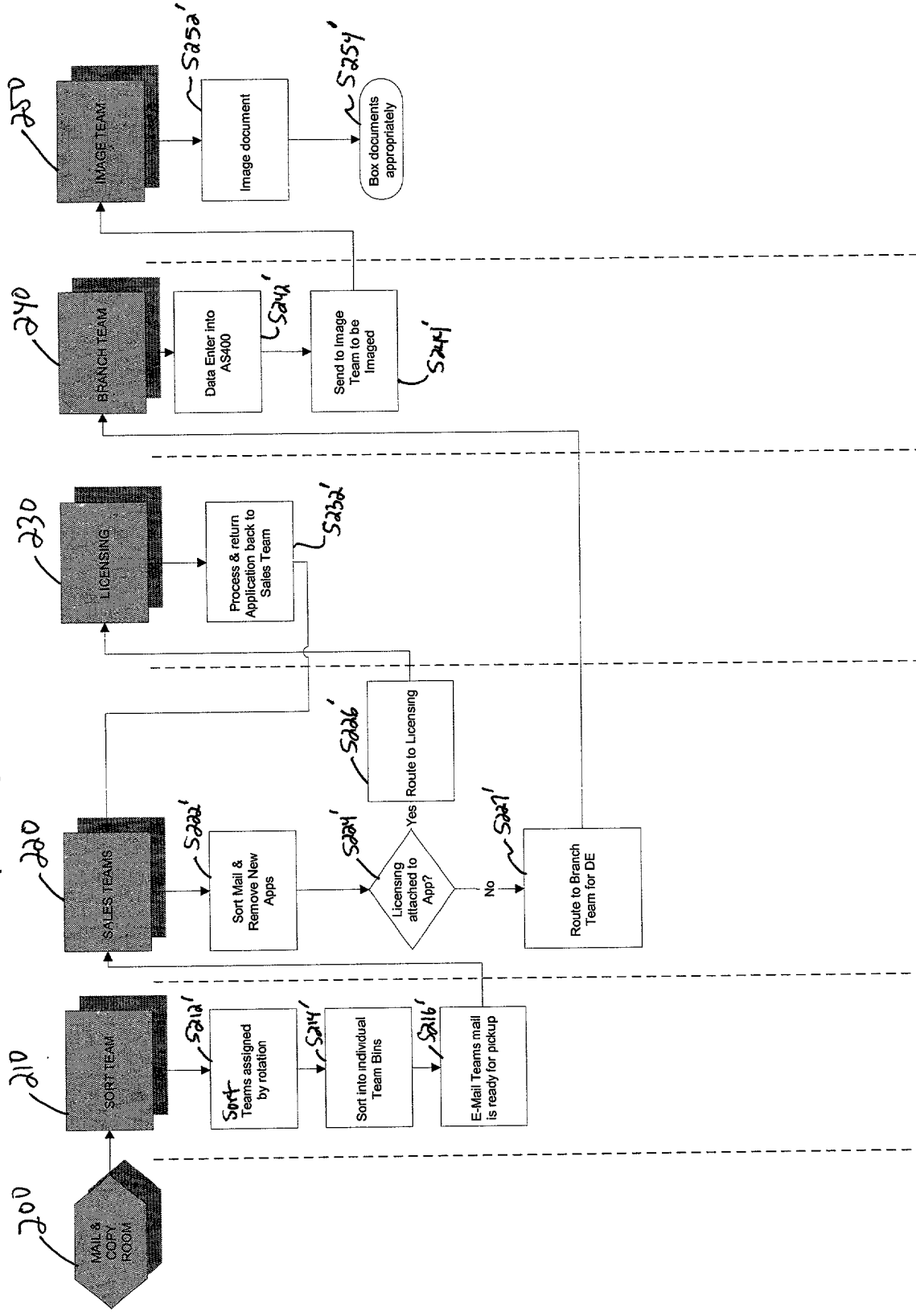


Fig. 5B

Document Types Application Submission

TYPE OF DOCUMENT	DEFINITION	EXAMPLES OF INFORMATION INCLUDED	PROPOSED IMAGE DOCUMENT NAME
• Application	Part I – May include an EMU (Expedite Medical Underwriting Form – used as a mini Part II)	• Part I • EMU	APPI
• Application Part II	Medical Information	• Application –Part II • Non-Medical • Paramed • Unsigned Telemed • Signed Telemed • Other Company Medical Form	APP II
• Illustration	Proposal of plan sold and signed in states where NAIC regulations apply	• Illustration • Non-illustration Forms	ILLUS
• Administrative Forms	Forms required by some states, as well as company required forms in order to process new business	• Replacement Forms • HIV Consent Forms • Interim Conditional Receipt • Conditional Receipt • Authorization Forms • Disclosure Statements	NBFORM
• Correspondence	Various documents from agent, GA, proposed insured or provider to aid in the issue of a life insurance policy	• Initial Cover Letter/transmittal • Correspondence form Agent • Correspondence from Provider • Correspondence from Proposed Insured • Correspondence from GA • Trust Agreements • Any Attached Notes • EMU if received without Part I	CORRESP

Fig. 6A

340

320

63

Document Types

Application Submission

TYPE OF DOCUMENT	DEFINITION	INFORMATION INCLUDED	PROPOSED IMAGE DOCUMENT NAME
<ul style="list-style-type: none"> Compliance Request 	Proposed insured requests medical information related to underwriting decision	<ul style="list-style-type: none"> Correspondence from proposed insured requesting release of medical information 	COMPLI
<ul style="list-style-type: none"> 1035/TAX 	Correspondence related to a 1035 exchange transaction to transfer cash value from one carrier to another	<ul style="list-style-type: none"> 1035 exchange memorandum 1035 exchange paperwork Cost Basis Information Tax Forms – 1099R, 5498, W9 Memorandums Minimum Deposit ResQ Worksheet Loan Transfer (1035LT – 01) Letters, check stubs from Surrender Company Statement regarding Tax Advantage Policies Other Carriers Check 	1035
<ul style="list-style-type: none"> Supplemental Application 	Supplemental Rider(s) attached to base policy	<ul style="list-style-type: none"> Child Rider Aviation Supplement Underwater Diving and Sky Sports Supplement Motor Sports Supplement Climbing Supplement Foreign Residence/Travel Supplement Resident Alien Supplement Drug Use Supplement Alcohol Use Supplement Financial Supplement 	SUPPAPP
<ul style="list-style-type: none"> Collateral Assignment 	Assignment of policy benefits as collateral to obtain loan	<ul style="list-style-type: none"> Collateral Assignment Form Release of Collateral Assignment Form Correspondence regarding assignment or release of assignment 	COLLAT
<ul style="list-style-type: none"> Single Case Agreement 	Special arrangement with BGA	<ul style="list-style-type: none"> Single Case Agreement 	SCA

Fig. 6C

Document Types

Application Submission

300

310

320

340

TYPE OF DOCUMENT	DEFINITION	INFORMATION INCLUDED	PROPOSED IMAGE DOCUMENT NAME
• Attending Physicians Statement	Doctor notes related to history of medical condition and care	<ul style="list-style-type: none"> • Attending Physicians Statement • Reports, office and Hospital Records 	APS
• Laboratory Tests	Blood and Urine specimens taken at time of Paramedical examination	<ul style="list-style-type: none"> • HOS/SMAC – Electronic Receipt of Urine/Blood Test • HOS – Paper Urine Test Results • SMAC – Paper Blood Test Results 	HOSMAC HOS SMAC
• Electrocardiogram	Required at Underwriters request based upon information reflected on application	<ul style="list-style-type: none"> • Tracings • Interpretations • X-Ray Copies • X-Ray Reports/Interpretations 	EKG
• Motor Vehicle Report	Required at Underwriters request based upon information reflected on application	<ul style="list-style-type: none"> • Motor Vehicle Report 	MVR
• Inspection Reports	Required at Underwriters request based upon information reflected on application	<ul style="list-style-type: none"> • Reports and Credit Reports • Business/Beneficiary Inspection Reports 	INSP
• Lab Receipt/Urine/Blood Test	Hard copy of test results received from laboratory electronically	<ul style="list-style-type: none"> • Lab receipt of Urine and Blood tests 	LABTICK

Fig. 6D

Fig. 7

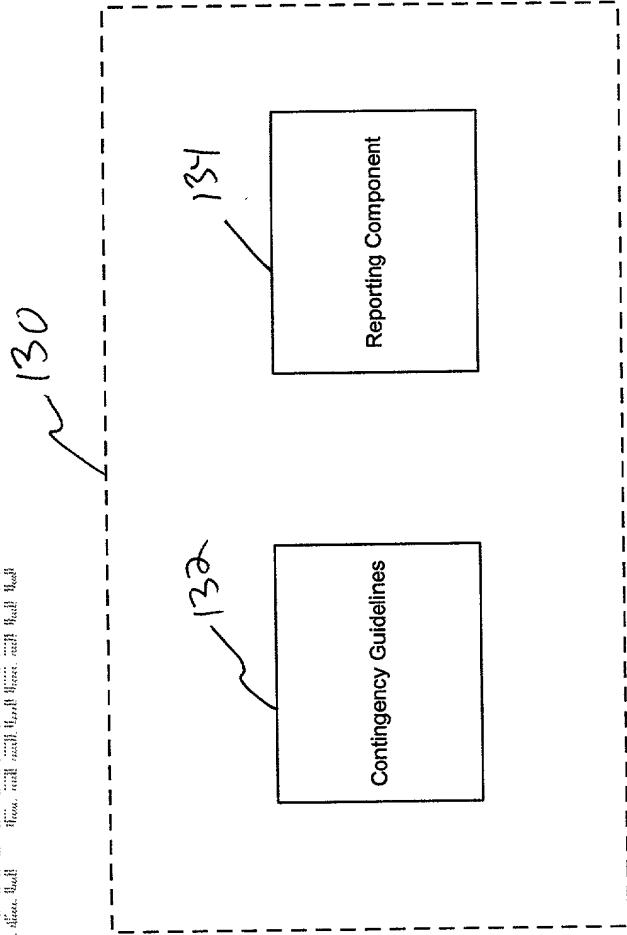
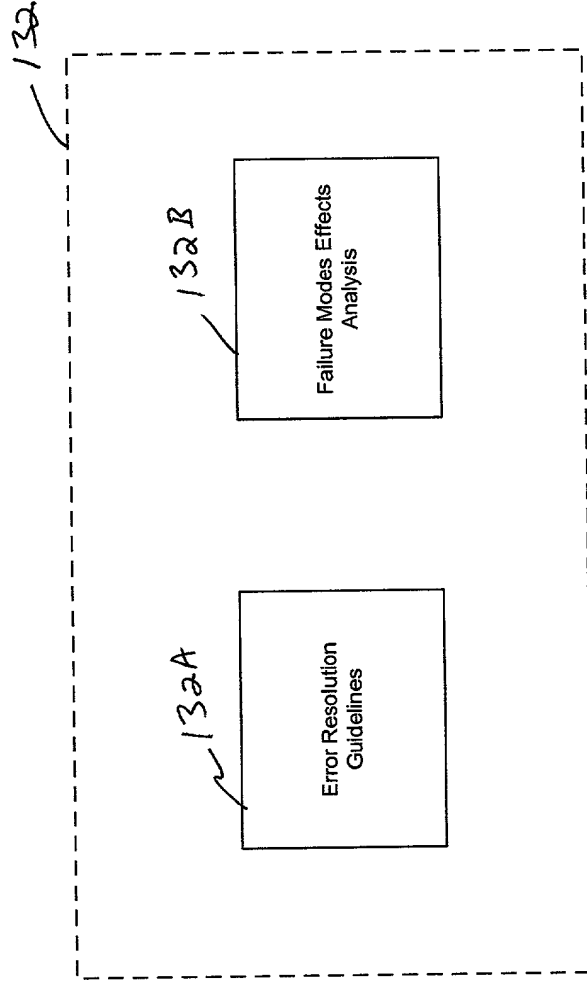


Fig. 8



ERROR RESOLUTION GUIDELINES

WHAT	WHO IDENTIFIES	WHO RESOLVES	RESOLUTION	TYPE COMMUNICATION	BY WHEN	FOLLOWUP
Scanning/Indexing						
1. Illegible image	Quality Assurance or Team	Broker General Agent (BGA)	<ul style="list-style-type: none"> Notify BGA BGA re-scans entire document Insurance Provider moves "bad scan" 	Shared spreadsheet to enter errors. Send email to BGA at end of each day.	24 hours from time of notification	CM follows up with BGA within 48 hours
2. Sticky notes covering data	Quality Assurance or Team	BGA	<ul style="list-style-type: none"> Notify BGA BGA re-scans entire document INSURANCE PROVIDER moves "bad scan" 	Enter error - report to BGA	24 hours from time of notification	CM follows up with BGA within 48 hours
3. Pages indexed with incorrect work types	Quality Assurance or Team	BGA	<ul style="list-style-type: none"> Notify BGA Correct document type 	Enter error - report to BGA	24 hours from time of notification	CM follows up with BGA within 48 hours
4. Blank pages	Quality Assurance or Team	BGA or Team	<ul style="list-style-type: none"> Verify if application package is complete. If OK, no action required. If missing info, see #8 	Enter error - report to BGA	24 hours from time of notification	CM follows up with BGA within 48 hours
5. Upside down images	Quality Assurance or Team	BGA	<ul style="list-style-type: none"> Notify BGA BGA re-scans entire document INSURANCE PROVIDER moves "bad scan" 	Enter error - report to BGA	24 hours from time of notification	CM follows up with BGA within 48 hours
6. Duplicates	Quality Assurance or Team		<ul style="list-style-type: none"> Review and verify if different from original Notify BGA If true duplicate, INSURANCE PROVIDER moves "bad scan" 	Enter error - report to BGA if a true duplicate. If not a true duplicate, no action required.	24 hours from time of notification	CM follows up with BGA within 48 hours
7. New App for other Carrier - document not requested	Quality Assurance or Team	BGA	<ul style="list-style-type: none"> Notify BGA INSURANCE PROVIDER moves "bad scan" 	Enter error - report to BGA	Immediately	NA
8. Incomplete	Quality	BGA	<ul style="list-style-type: none"> Notify BGA 	Enter error - report to BGA	24 hours from	CM follows up

Fig. 9A

WHAT	WHO IDENTIFIES	WHO RESOLVES	RESOLUTION	TYPE COMMUNICATION	BY WHEN	FOLLOW UP
documents (ie. missing pages)	Assurance or Team		<ul style="list-style-type: none"> BGA re-scans entire document INSURANCE PROVIDER moves "bad scan" 			with BGA within 48 hours
9. Reconciliation mismatch	Imaging Vendor or INSURANCE PROVIDER Staff	INSURANCE PROVIDER, Imaging Vendor	<ul style="list-style-type: none"> Insurance Provider notifies Imaging Vendor researches Re-send file 			
10. Image rejects	Imaging Vendor or INSURANCE PROVIDER Staff	INSURANCE PROVIDER, Imaging Vendor	<ul style="list-style-type: none"> Insurance Provider notifies Imaging Vendor researches Re-send file 			
11. Documents mismatched to wrong file	Quality Assurance or Team	BGA	<ul style="list-style-type: none"> Notify BGA BGA re-scans entire document INSURANCE PROVIDER moves "bad scan" 	Enter error - report to BGA	24 hours from time of notification	CM follows up with BGA within 48 hours
12. Other Carrier subsequent mail not requested	Quality Assurance or Team	BGA	<ul style="list-style-type: none"> Notify BGA INSURANCE PROVIDER moves "bad scan" 	Enter error - report to BGA	Immediately	NA
13. Unsigned application	BGA, CM	BGA	<ul style="list-style-type: none"> Notify BGA BGA gets app signed BGA re-scans entire document INSURANCE PROVIDER moves "bad scan" 	Enter error - report to BGA	24 hours from time of notification	CM follows up with BGA within 48 hours
14. Work object found at front end of	BGA, CM	BGA	<ul style="list-style-type: none"> Notify BGA BGA re-scans entire document 	Enter error - report to BGA	24 hours from time of notification	CM follows up with BGA within 48 hours

Fig. 7B

ERROR RESOLUTION GUIDELINES

WHAT	WHO IDENTIFIES	WHO RESOLVES	RESOLUTION	TYPE COMMUNICATION	BY WHEN	FOLLOW UP
next scanned case			<ul style="list-style-type: none"> INSURANCE PROVIDER moves "bad scan" 			
15. Policy Service, licensing requests	BGA, CM	BGA	<ul style="list-style-type: none"> Notify BGA to send paper file to Policyholder INSURANCE PROVIDER moves "bad scan" 	Enter error – report to BGA	24 hours from time of notification	CM follows up with BGA within 48 hours
16. Products other than term life, or NY cases	BGA, CM	BGA	<ul style="list-style-type: none"> Notify BGA to send paper file to correct location INSURANCE PROVIDER moves "bad scan" 	Enter error – report to BGA	24 hours from time of notification	CM follows up with BGA within 48 hours
17. Page overlay	Quality Assurance or Team	BGA	<ul style="list-style-type: none"> Notify BGA BGA re-scans entire document INSURANCE PROVIDER moves "bad scan" 	Enter error – report to BGA	24 hours from time of notification	CM follows up with BGA within 48 hours
CWA Processing						
18. Amount on check different than amount due for application	CM	BGA, CM	<ul style="list-style-type: none"> Check and application returned to BGA BGA obtains new check 	Enter error – report to BGA	24 hours from time of notification	NA
19. Batch ticket different than total of checks attached	Cashiers	BGA, Cashiers	<ul style="list-style-type: none"> Notify BGA Return batch to CM for correction 	Enter error – report to BGA	24 hours from time of notification	NA
20. Check attached to incorrect application	CM	BGA, CM	<ul style="list-style-type: none"> Return check and application to BGA 	Enter error – report to BGA	24 hours from time of notification	NA
21. Check not attached to	BGA, Cashiers, CM	BGA, Cashiers	<ul style="list-style-type: none"> Notify BGA CM requests pre- 	Enter error – report to BGA	24 hours from time of	CM follows up with BGA within

Fig. 9C

ERROR RESOLUTION GUIDELINES

WHAT	WHO IDENTIFIES	WHO RESOLVES	RESOLUTION	TYPE COMMUNICATION	BY WHEN	FOLLOW UP
pre-numbered remittance sheet			numbered remittance sheet with check information from BGA		notification	48 hours
22. Check not approved for deposit	Data Entry, CM	BGA, CM	Check and Application returned to BGA	Enter error - report to BGA	24 hours from time of notification	NA
23. Check payable to another carrier	Cashiers	BGA, Cashiers	Check and application returned to BGA	Enter error - report to BGA	24 hours from time of notification	NA
Transmittal Letters						
24. Companion policies not identified	Data Entry, CM	BGA, CM	<ul style="list-style-type: none"> Notify BGA CM requests information from BGA 	Enter error - report to BGA	24 hours from time of notification	CM follows up with BGA within 48 hours
25. Cash for each policy not clearly identified	Data Entry, CM	BGA, CM	<ul style="list-style-type: none"> Notify BGA CM requests information from BGA 	Enter error - report to BGA	24 hours from time of notification	CM follows up with BGA within 48 hours
Data Entry/Recon						
26. Incorrect policy number data entered	BGA, CM	CM, Supervisor, Data Entry	<ul style="list-style-type: none"> Delete incorrect record Data enter correct record 	Enter error - report to Data Entry	24 hours from time of notification	CM follows up with Data Entry within 48 hours
27. Records not processed by Data Entry	Data Entry Reconciler	Data Entry Rep	Key data correctly	Error report - report to Data Entry	24 hours from time of notification	NA

Fig. 9D

Failure Modes Effects Analysis (FMEA)

ITEM/PROCESS STEP	POTENTIAL FAILURE	POTENTIAL EFFECT OF FAILURE	SEVERITY	CAUSES	OCCURRENCE	CURRENT CONTROLS	D E F E C T I O N	RECOMMENDED ACTIONS	D U E D A T E
600 Broker General Agent (BCA) scans documents	605 • BCA can't scan or retrieve images on their server	610 • Cycle time delayed		615 • Ascensus Domain Controllers "busy"	620	625 • Add domain controllers to Intellisys list	630	635 • Scan directly to Intellisys server in KC	645 650
BCA indexes into vendor image system	• Can't transmit data • Leased phone lines go down • Scanners down • System down	• No documents transmitted • Cycle time delayed	10	• Bad weather • Faulty equipment • Power failure • Maintenance of scanners not regular	1	• Emergency recovery plan for system problems • Regular maintenance on equipment	100	• Notify INSURANCE PROVIDER immediately • Box docs, send Federal Express • Review Audit Log • Review RIMAIN Log	
BCA Indexes into Vendor image system	• Data sent to INSURANCE PROVIDER incomplete or incorrect • Unclear images • All documents not scanned • Incomplete remittance sheet	• Records built incorrectly • Duplicate records • Increased cycle time • Rework • Cash not deposited • Missing money • Insufficient	5	• Human error • PC's down • Software down • Application completed incorrectly • Mail delivery problems • Systems down	5	• Regular system checks • QC all images before index	5125	• Implement exception processing procedures	

Fig. 10A

Failure Modes Effects Analysis (FMEA)

600 605 610 615 620 625 630 635 640 645 650

ITEM/PROCESS STEP	POTENTIAL FAILURE	POTENTIAL EFFECT OF FAILURE	SEVERITY	CAUSES	OCURRENCE	CURRENT CONTROLS	D E T E C T I O N	R E C O M M E N D E D A C T I O N S	D U E D A T E
BGA indurics into vander image system	<ul style="list-style-type: none"> Incomplete money procedure Money not received in Cashiers 	archive							
Intellisys transmits to Gigabyte PC	<ul style="list-style-type: none"> Data not sent 	<ul style="list-style-type: none"> Images not received 		<ul style="list-style-type: none"> Gigabyte PC down Network down 		<ul style="list-style-type: none"> SNMP monitoring Electronic notification 		<ul style="list-style-type: none"> Notify INSURANCE PROVIDER Immediately 	
Gigabyte transmission to INSURANCE PROVIDER	<ul style="list-style-type: none"> Data not sent 	<ul style="list-style-type: none"> Images not received Apps do not get processed 	5	<ul style="list-style-type: none"> Phone Lines Down Network down Internal system failure 	1	<ul style="list-style-type: none"> Check hourly 	1 5 0 0	<ul style="list-style-type: none"> If data not received by 3 p.m., write to CD Rom and send Federal Express 	
Gigabyte transmission to Insurance Provider	<ul style="list-style-type: none"> Data is incorrect 	<ul style="list-style-type: none"> Rework to return files Increased cycle time 	5	<ul style="list-style-type: none"> Human error 	5	<ul style="list-style-type: none"> Exception processing procedures 	1 2 5	<ul style="list-style-type: none"> Initiate exception processing procedures 	
Splitter program converts multi-page TIF to single page TIF	<ul style="list-style-type: none"> Incorrect formatting Server down Corrupted file 	<ul style="list-style-type: none"> No apps processed 	1 0	<ul style="list-style-type: none"> Server down Software bug 	1	<ul style="list-style-type: none"> Splitter is checked periodically 	1 1 0	<ul style="list-style-type: none"> Create a detector to send email or log 	

Fig. 10B

Failure Modes Effects Analysis (FMEA)

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ITEM/PROCESS STEP	POTENTIAL FAILURE	POTENTIAL EFFECT OF FAILURE	SEVERITY	CAUSES	OCURRENCE	CURRENT CONTROLS	DEFECTION	RECOMMENDED ACTIONS	DATE
Splitter Program Converts results into 1.5 to 5.0 sec per TTF	LAN down							monitor Move to another PC	
Image Mover Polling	Program failure Server down LAN down	<ul style="list-style-type: none"> No apps processed 	10	<ul style="list-style-type: none"> Software errors Hardware failure 	1	<ul style="list-style-type: none"> Checked periodically 	100	<ul style="list-style-type: none"> Create a detector to send email or log monitor Move to another PC 	
RIMAIN	<ul style="list-style-type: none"> Mainframe down DASD space Server down LAN down provider tables not updated 	<ul style="list-style-type: none"> Documents not correctly matched Documents cannot be processed Rework May not store images 		<ul style="list-style-type: none"> No connection to mainframe Out of disk space Software errors Lack of communication Lack of accountability 		<ul style="list-style-type: none"> Checked periodically 		<ul style="list-style-type: none"> Delete, copy or move file If hardware problem, move to another machine If software issue, correct problem 	
RIMAINGA	<ul style="list-style-type: none"> Mainframe down DASD space Server down LAN down Provider 	<ul style="list-style-type: none"> Documents not correctly matched Documents cannot be processed 		<ul style="list-style-type: none"> No connection to mainframe Out of disk space Software errors 		<ul style="list-style-type: none"> Checked periodically 		<ul style="list-style-type: none"> Delete, copy or move file If hardware problem, move to another 	

Fig. 10c

Failure Modes Effects Analysis (FMEA)

ITEM/PROCESS STEP	POTENTIAL FAILURE	POTENTIAL EFFECT OF FAILURE	SEVERITY	CAUSES	OCURRENCE	CURRENT CONTROLS	DETECTION	RECOMMENDED ACTIONS	DUPLICATE
600 BOMBINGA	605 tables not updated	610 • Rework • May not store images		615 • No communication • Lack of accountability several areas involved	620	625	630	635 • machine • If software issue, correct problem	645 650
600 Poller Process	605 • Program failure • Server down • LAN down	610 • No apps processed	615 10	620 • Software errors • Lack of technical support from INSURANCE PROVIDER	625 1	630 • IT support people in place • Checked periodically	635 100	645 • Move to secondary RIP server. Already in place.	
600 RIP	605 • Mainframe falls to convert files • AS400 down • Lack of directory space on AS400	610 • No apps processed • Image not stored • Rework • Drain on resources	615 10	620 • Program failure • Hardware failure • Insufficient memory capacity management	625 1	630 • IT support people in place • Detector currently turns screen red	635 50	645 • Move to secondary RIP server. Already in place. • Contact AS/400 support	
600 AWD/AS400	605 • AS400 down • Lack of directory space on	610 • No apps processed • Image not stored	615 10	620 • Program failure • Hardware failure	625 1	630 • IT support people in place • Alerts in	635 100	645 • Build redundancy • Monitor capacity/per	

Fig. 10D

Failure Modes Effects Analysis (FMEA)

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ITEM/PROCESS STEP	POTENTIAL FAILURE	POTENTIAL EFFECT OF FAILURE	SEVERITY	CAUSES	OC CURRENT PREVENTIVE CONTROLS	D/R RECOMMENDED ACTIONS	DUE DATE
Awd AS400	AS400	<ul style="list-style-type: none"> Rework Drain on resources RIP may run out of space 		<ul style="list-style-type: none"> Insufficient memory capacity management 	AS/400	formance	
Files grouped/NB cases extracted for transmission to India	<ul style="list-style-type: none"> NB case not built correctly Lack of resources Equipment failures 	<ul style="list-style-type: none"> Manual intervention File does not get extracted to send to India App does not get processed Rework Incorrect pending record 	1	<ul style="list-style-type: none"> Human error Software errors Hardware errors 	<ul style="list-style-type: none"> Current index procedures 	<ul style="list-style-type: none"> Training Quality Assurance 	
Extract work for India	<ul style="list-style-type: none"> Programs fail All docs not sent to India Systems down Middle box down Files not imaged correctly 	<ul style="list-style-type: none"> No apps processed May not go to India Images will queue up 	10	<ul style="list-style-type: none"> Software errors Hardware failure LAN failure AS/400 failure 	<ul style="list-style-type: none"> India monitors and contacts us when they do not receive images Compaq monitors processors INSURANCE 	<ul style="list-style-type: none"> Automated detection of failed jobs 	

Fig. 10E

Failure Modes Effects Analysis (FMEA)

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ITEM/PROCESS STEP	POTENTIAL FAILURE	POTENTIAL EFFECT OF FAILURE	SEVERITY	CAUSES	OCCURRENCE	CURRENT CONTROLS	DETECTION	RECOMMENDED ACTIONS	DUPLICATE
Extract work For India	<ul style="list-style-type: none"> Extract not extracting every hour 					PROVIDER checks periodically Alerts in place for failed jobs			
server/FTP Server	<ul style="list-style-type: none"> Gigabyte down 	<ul style="list-style-type: none"> Will not go to India Will not meet cycle time CTQ Lynchburg may have no data entry Resource drain in NB 	10	<ul style="list-style-type: none"> Gigabyte server down Gigabyte machine not monitored enough LAN down Wide area network down India down 	5	<ul style="list-style-type: none"> India notifies if they do not receive images INSURANCE PROVIDER support periodically check transmissions Compaq and network control monitor LAN and WAN 	10	<ul style="list-style-type: none"> Move to another gigabyte server if hardware failure 	
GECIS Data Entry Server	<ul style="list-style-type: none"> India LAN down India server down India system down File corruption 	<ul style="list-style-type: none"> Cannot input apps in India Reconciliation difficult 	10	<ul style="list-style-type: none"> Hardware failure Software failure Line problems 	5	<ul style="list-style-type: none"> Contact India when system is down 	100	<ul style="list-style-type: none"> Contact India (ESWAR) to get ratings and other information 	
Update		<ul style="list-style-type: none"> Will not build 	1	<ul style="list-style-type: none"> Human error 	1	<ul style="list-style-type: none"> Help desk 	5	<ul style="list-style-type: none"> Constant 	

Fig. 10K

Failure Modes Effects Analysis (FMEA)

ITEM/PROCESS STEP	POTENTIAL FAILURE	POTENTIAL EFFECT OF FAILURE	SEVERITY	CAUSES	OCCURRENCE	CURRENT CONTROLS	DETECTION	RECOMMENDED ACTIONS	DATE
Mainframe	<ul style="list-style-type: none"> Cyberlife down CMFE down Systems fail with CMFE running Gigabyte down Data incorrectly entered Duplicate data 	<ul style="list-style-type: none"> pending record Rework Policy issued incorrectly Data entry resources increased work 	0	<ul style="list-style-type: none"> Line down Mainframe down Cyberlife down Hardware failure Software failure Poor image Education 	0	<ul style="list-style-type: none"> receives numerous calls QC system in place 	0	<ul style="list-style-type: none"> monitoring of transmissions 	

Fig. 106

Failure Modes Effects Analysis (FMEA)

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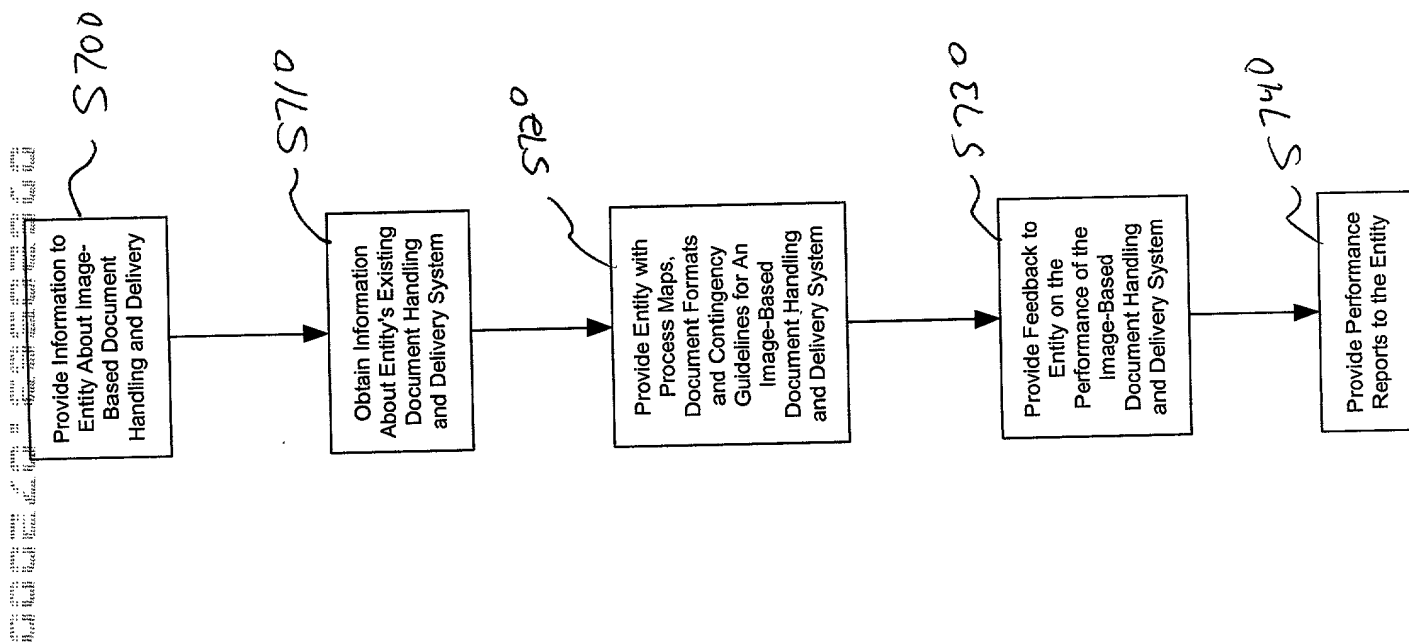
ITEM/PROCESS STEP	POTENTIAL FAILURE	POTENTIAL EFFECT OF FAILURE	SEVERITY	CAUSES	OCCURRENCE	CURRENT CONTROLS	DETECTION	RECOMMENDED ACTIONS	DATE
AWD update via re-index	<ul style="list-style-type: none"> India LAN down India server down India system down File corruption Failure to send file Invalid format AS400 down Middle box down Incorrect directories Update programs not being run Gigabyte down Run out of space Resources not available to continuously monitor systems 	<ul style="list-style-type: none"> Incorrect status in AWD Reconciliation useless Cycle time not met 	10	<ul style="list-style-type: none"> Software failure Hardware failure Incorrect formats of re-index record Update record incorrectly Failure to send records 	5	<ul style="list-style-type: none"> Mainframe reports being run Ez-trieve report Middle box application is email enabled (detects error and notifies IT via email) Compaq monitors middle box 	150	<ul style="list-style-type: none"> Constant monitoring of transmissions 	

Fig. 10H

Failure Modes Effects Analysis (FMEA)

ITEM/PROCESS STEP	POTENTIAL FAILURE	POTENTIAL EFFECT OF FAILURE	SEVERITY	CAUSES	OC CURRENCE	CURRENT CONTROLS	DETECTION	RECOMMENDED ACTIONS	DU E DATE
600 AND Verify via Ke-index	<ul style="list-style-type: none"> Resources lacking in India Cycle time not met in India due to system problems 								
Reconciliation Process	<ul style="list-style-type: none"> Files not reconciled 	<ul style="list-style-type: none"> Missing files 		<ul style="list-style-type: none"> Lines are down File corrupt Audit database down Server down 	•			<ul style="list-style-type: none"> Email reconciliation file Reconcile when problem is fixed 	

Fig. 10 E



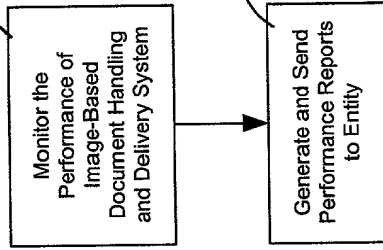


Fig. 12

JOINT DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY

As the below named inventors, we hereby declare that:

Our residences, post office addresses and citizenship are as stated below next to our names;

We believe that we are the original, first and joint inventors of the subject matter which is claimed and for which a patent is sought on the invention entitled SYSTEM AND METHOD FOR IMPLEMENTING AN IMAGE-BASED DOCUMENT HANDLING AND DELIVERY SYSTEM, the specification of which

- ☒ is attached hereto.
☐ was filed on _____ as Application Serial Number _____ and was
 amended on _____
 (if applicable)

We hereby state that we have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to in this declaration.

We acknowledge the duty to disclose all information known to us to be material to the patentability of this application, as defined in 37 C.F.R. § 1.56.

We acknowledge the duty to disclose to the Office all information known to us to be material to patentability as defined in § 1.56, which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

Prior Foreign Application(s)

We hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application(s) for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Country	Application Number	Date of Filing (day, month, year)	Date of Issue (day, month, year)	Priority Claimed Under 35 U.S.C. 119	
				Yes <input type="checkbox"/>	No <input type="checkbox"/>
				Yes <input type="checkbox"/>	No <input type="checkbox"/>

Prior United States Provisional Application(s)

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below

Application Serial Number	Date of Filing (day, month, year)

Prior United States Application(s)

We hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, we acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Application Serial Number	Date of Filing (day, month, year)	Status - Patented, Pending, Abandoned

And we hereby appoint, both jointly and severally, as our attorneys with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith the following attorneys, their registration numbers being listed after their names:

Thomas J. Scott, Jr., Registration No. 27,836; Stanislaus Aksman, Registration No. 28,562; James G. Gatto, Registration No. 32,694; Christopher C. Campbell, Registration No. 37,291;; Henry C. Su, Registration No. 37,738; Brian M. Buroker, Registration No. 39,125; Charles F. Hollis, Registration No. 40,650; Jonathan D. Link, Registration No. 41,548; Kevin J. Dunleavy, Registration No. 32,024; Kevin T. Duncan, Registration No. 41,495; Charles B. Lobsenz, Registration No. 37,857; George Georgellis, Registration No. 43,632; Stephen T. Schreiner, Registration No. 43,097; Christopher J. Cuneo, Registration No. 42,450; Raphael A. Valencia, Registration No. 43,216; Scott D. Balderston, Registration No. 35,436; Steven P. Klocinski, Registration No. 39,251; Yisun Song, Registration No. 44,487; Jennifer A. Albert, Registration No. 32,012; Kerry Owens, Registration No. 37,412; Milan M. Vinnola, Registration Number 45,979; Devin S. Morgan, Registration No. 45,562; Andrew J. Ririe, Registration No. 45,597; Carl Benson, Registration No. 38,378; Thomas E. Anderson, Registration No. 37,063; Thomas Blasey, Registration No. 33,475; Robin Clark, Registration No. 40,956; Herbert V. Kerner, Registration No. 42,721 and René Vazquez, Registration No. 38,647

All correspondence and telephone communications should be addressed to Hunton & Williams, 1900 K Street, N.W., Washington, D.C. 20006-1109, telephone number (202) 955-1500, which is also the address and telephone number of each of the above listed attorneys.

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

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